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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/483,883	01/18/2000	Mitsunobu Ono	P/16-251	8978

7590 03/28/2006

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EXAMINER

AN, SHAWN S

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/483,883	Applicant(s) ONO ET AL.	
	Examiner Shawn S. An	Art Unit 2643-2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-12 is/are pending in the application.
- 4a) Of the above claim(s) 5-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Request for Continued Examination

1. The request filed on 1/23/06 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/483,883 is acceptable and a RCE has been established. An action on the RCE follows.

Response to Amendment

2. As per Applicant's instructions as filed on 1/23/06, claim 4 has been amended, claims 1-3 have been canceled, and claims 5-8 have been withdrawn.

Response to Remarks

3. As per Applicant's remarks/arguments, please refer to the following grounds of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al (5,627,583) in view of Kato (4,831,444).

Regarding claim 4, Nakamura et al discloses an endoscope apparatus, comprising:

a general purpose video processing circuit (Figs. 2 and 4, 16) for having a drive signal generation function (21) for driving the image pickup device, and a signal

processing function (13, 14, or 23) for outputting the standard video signal by processing the output signal from the image pickup device; and

an endoscope function adjusting circuit (Figs. 2 and 4, 16; Fig. 8, 70) comprising a function modifying circuit (24, 25, 26, or 29), connected to the video processing circuit, for modifying at least one of the drive signal processing function (21) and the signal processing function (13, 14, or 23) in accordance with the endoscope having the image pick-up device therein;

wherein the endoscope comprises a delay amount adjusting circuit (Fig. 8, 91) for adjusting signal delay.

Nakamura et al fails to disclose an endoscopic function adjusting circuit comprising a delay amount adjusting circuit for canceling the effect of a signal delay taking place in a signal cable connecting the image pick-up device to the signal processing circuit, by adjusting timings of drive signals of the solid-state image pickup device.

Furthermore, Nakamura et al does not specifically disclose the video processing circuit and the endoscopic function adjusting circuit being provided in only two-substrates in a common signal processing apparatus.

However, Kato teaches an endoscopic function adjusting circuit (Fig. 8C, 36) comprising a delay amount adjusting circuit (36) for canceling the effect of a signal delay taking place in a signal cable (17) connecting the image pick-up device (20) to the signal processing circuit (30) by adjusting timings of drive signals (22) of the solid-state image pickup device (20).

Moreover, Kato's Fig. 8 shows a general purpose video processing circuit (Fig. 8C, 12) and an endoscopic function adjusting circuit (36) being provided in only two-substrates in a common signal processing apparatus (12).

Note: the general purpose video processing circuit comprises elements 38, 40, 34, 32, and 30 as one-substrate, and the function adjusting circuit serves as another-substrate. Likewise, Applicant's Fig. 2 shows the general purpose video processing circuit (30) comprises elements 40, 41, 52, 53, 58, 59, and 32 as one-substrate, and the function adjusting circuit (31) serves as another-substrate.

Therefore, it would have been considered obvious to a person of ordinary skill in the relevant art employing an endoscope apparatus as taught by Nakamura et al to incorporate all of the Kato's teachings as above for synchronization of a timing signal as well as the convenient layout of the video processing circuit and the function adjusting circuit, thereby adverse effect of delay and deterioration of signal during transmission through the signal line are compensated.

Regarding claim 9, Kato teaches signal processing circuit as being usable with a plurality of insert sections having different respective lengths and correspondingly different internal delay amounts (col. 2, lines 5-12).

Regarding claim 10, Nakamura et al discloses the signal processing circuit as being usable with a plurality of solid-state imaging devices having different respective number of pixels (Figs. 1(a)-1(b), 11-12); col. 2, lines 11-15).

Regarding claim 11, Nakamura et al discloses a solid-state image pickup device (Fig. 2, 11 or 12) mounted at the end of an insertion section of an endoscope;

a signal processing circuit (Figs. 2 and 4, 16) for driving the image pickup device and for producing a standard video signal in response to an output signal from the image pickup device;

wherein the signal processing circuit comprises the video processing circuit (16) and the function adjusting circuit (Fig. 8, 70).

Regarding claim 12, Kato teaches controlling a wave shaping operation for wave shaping (compensating waveform deterioration) the output signal from the solid-state image pickup device such as CCD (col. 1, lines 31-40; col. 2, lines 5-12).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn S An* whose telephone number is 571-272-7324.

7. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SHAWN AN
PRIMARY EXAMINER

3/21/06